National Transportation Safety Board NTSB ID: DEN03LA018 Aircraft Registration Number: N552CS FACTUAL REPORT Occurrence Date: 11/22/2002 Most Critical Injury: Minor Occurrence Type: Accident Investigated By: NTSB ETYBO Location/Time Nearest City/Place State Zip Code Local Time Time Zone CO 80465 1830 **MST** Morrison Distance From Landing Facility: Direction From Airport: Airport Proximity: Off Airport/Airstrip Aircraft Information Summary Aircraft Manufacturer Model/Series Type of Aircraft Enstrom F-28C Helicopter Sightseeing Flight: No Air Medical Transport Flight: No

Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

On November 22, 2002, at 1830 mountain standard time, an Enstrom F-28C helicopter, N552CS, piloted by a private pilot, sustained substantial damage when it made a hard landing in a ditch along a road near Morrison, Colorado. Prior to the hard landing, the helicopter's tail rotor struck telephone lines during a landing attempt. Night visual meteorological conditions prevailed at the time of the accident. The personal flight was being conducted without a flight plan under the provisions of 14 CFR Part 91. The pilot reported minor injuries. The passenger on board reported no injuries. The flight originated at Longmont, Colorado, at 1800.

In his written statement, the pilot said he was approaching a landing area, located just east of a restaurant, from the south. The pilot said that during the approach he could not see the lighted flag on top of the restaurant, thus he could not determine the wind direction or velocity for landing. He said he executed a go around and began maneuvering so that he could approach the landing area from the east. The pilot said that at the "northern most point of the go around, a tail rotor strike was felt." The pilot immediately put the helicopter down on a road.

An examination of the wreckage showed the left skid broken upward. The right skid was bent upward and the bottom fuselage, aft of the pilot seat, was crushed upward. Both tail rotor blades were bent near mid span. Both main rotor blades were bent and twisted. Control continuity was confirmed. An examination of the helicopter's systems revealed no anomalies.

National Transportation Safety Board
FACTUAL REPORT
AVIATION

NTSB ID: DEN03LA018

Occurrence Date: 11/22/2002

AVIATION			Occurrence Type: Accident										
Landing Facility/Approach Inf	formation	•											
Airport Name Airp				Ai	irport Elevati	ion	Runway Used Ru			Runway Length		Runv	vay Width
					Ft.	MSL							
Runway Surface Type: Grass/turf									•		'		
Runway Surface Condition: Dry													
Type Instrument Approach: NONE	<u> </u>												
VFR Approach/Landing: Full Stop													
Aircraft Information													
Aircraft Manufacturer			Mode		ies					Serial	Numbe	er	
Enstrom			F-28							437			
Airworthiness Certificate(s): Normal													
Landing Gear Type: Skid													
Homebuilt Aircraft? No	Certifi	Certified Max Gross Wt.				2350 LBS Number			er of Engines: 1		: 1		
Engine Type:				Engine Manufacturer: Model/Series:								Rate	d Power:
- Aircraft Inspection Information													
Type of Last Inspection	Date of La	Date of Last Inspection Time			Time Si	e Since Last Inspection				ne To	tal Time		
Annual			09/2002	09/2002 34.3						ours		3	254 Hours
- Emergency Locator Transmitter (ELT) Information												
ELT Installed? Yes ELT Operated? No ELT Aided in Locating Accident Site? No													
Owner/Operator Information													
Registered Aircraft Owner Street Address P. O. Box 96													
Horizon Flying Club, LLC	City	City								ie	Zip Code		
	Street	Indian Hills CO 80454 Street Address									80454		
Operator of Aircraft 4625 W. 99th Place													
David Copp				City Westminster								te	Zip Code 80031
Operator Does Business As:		Westminster CO 8003 Operator Designator Code:								80031			
- Type of U.S. Certificate(s) Held: N	 Vone												
Air Carrier Operating Certificate(s):	:												
Operating Certificate:					Operator Co	ertific	ate:						
Regulation Flight Conducted Under	r: Part 91: Genera	al Aviat	ion										
Type of Flight Operation Conducted	l: Personal												
]	FACTU	JAL REP	ORT	- AVIATIO	ON							Page 2

National Transportation Safety Board
FACTUAL REPORT
AVIATION

NTSB ID: DEN03LA018

Occurrence Date: 11/22/2002

Principal Profession: Supplied Suppli		ce Type: Ac	cident												
Sex M Sext Occupied: Left Principal Profession: Business Certificate Number: On File	First Pilot	Information													
Sext M Seat Occupied: Left Principal Profession: Business Certificate Number: On File	Name		City					tate	Date	e of Birth	Age				
Carrilicate(s): Private	On File On F							ile On File					On	File	55
Airplane Rating(s): Single-enjine Land Rotocronft/Gilder/LTA: Helicopter Instrument Rating(s): None Type of Airspace: Class 3 Medical Cert. Status: Valid Medical—w/waivers/lim. Date of Last Medical Exam: O2/2001 Type of Airspace: Class 4 Medical Cert. Status: Valid Medical—w/waivers/lim. Date of Last Medical Exam: O2/2001 Type Rating(s): None Type of Airspace: Class 5 Weather Information Source of Briefing: Unknown Method of Briefing: Unknown Type of Briefing: Unknown	Sex: M	Seat Occupied:	Left	Prir	ncipal Profes	sion: Busine	ess			С	ertific	ate Num	ber:	On File	
Rotorcraft/Gilder/LTA: Helicopter	Certificate(s): Private														
Instrument Rating(s): None	Airplane Rating(s): Single-engine Land														
Type Rating(s): None	Rotorcraft/0	Glider/LTA: Helic	copter												
Type Rating/Endorsement for Accident/Incident Aircraft? Yes Current Biennial Flight Review? 07/2002	Instrument	Rating(s): None	9												
Medical Cert. Class 3 Medical Cert. Status: Valid Medical—w/ waivers/fim. Date of Last Medical Exam: 02/2001															
- Flight Time Matrix All AC This Make Ariginite Ariginite Ariginite Mach Engine Night Ariginite Ariginite Roboronalt Glider Theat Ariginite Theat A	Type Rating/Endorsement for Accident/Incident Aircraft? Yes Current Biennial Flight Review? 07/2002														
Flight Plan/Itineary State Airport Identifier Airport Identifier State Airport Identifier Airpo										Date of	Last N	Medical I	Exam	n: 02/2001	
Flight Plan/Itineary State Airport Identifier Airport Identifier State Airport Identifier Airpo															
Pilot in Command(PIC)	- Flight Tim	Flight Time Metrix I All A/C I mid make I						ght				Rotorcraft		Glider	
Last 90 Days	Total Time		264	233	35			8			3		\rightarrow		
Last 90 Days		nmand(PIC)	165	137	15		<u> </u>	4		-		1	38		
Last 30 Days			40		40		+	$\frac{1}{2}$							
Seatbelt Used? Yes Shoulder Harness Used? Yes Toxicology Performed? No Second Pilot? No Flight Plan/Itinerary Type of Flight Plan Filed: None Departure Point Longmont CO 2V2 1800 MST Type of Clearance: None Type of Airspace: Class E Weather Information Source of Briefing: Unknown							+						$\overline{}$		
Seatbelt Used? Yes Shoulder Harness Used? Yes Toxicology Performed? No Second Pilot? No Flight Plan/Itinerary Type of Flight Plan Filed: None Departure Point State Airport Identifier CO 2V2 1800 MST Destination Same as Accident/Incident Location Type of Clearance: None Type of Airspace: Class E Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown								$\overline{}$					$\overline{}$		
Type of Flight Plan Filed: None Departure Point Longmont CO 2V2 1800 MST Destination Same as Accident/Incident Location Type of Clearance: None Type of Airspace: Class E Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown															
Type of Flight Plan Filed: None Departure Point Longmont CO 2V2 1800 MST Destination Same as Accident/Incident Location Type of Clearance: None Type of Airspace: Class E Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown															
Departure Point Longmont CO 2V2 1800 MST Destination Same as Accident/Incident Location Type of Clearance: None Type of Airspace: Class E Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown	Flight Plan/Itinerary														
Longmont CO 2V2 1800 MST Destination State Airport Identifier Type of Clearance: None Type of Airspace: Class E Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown	Type of Flig	ght Plan Filed: No	one												
Destination Same as Accident/Incident Location Type of Clearance: None Type of Airspace: Class E Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown	Departure Point							tate	Air	Airport Identifier		Departure Time		Time	Time Zone
Same as Accident/Incident Location Type of Clearance: None Type of Airspace: Class E Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown	Longmont								2\	2V2		1800			MST
Type of Clearance: None Type of Airspace: Class E Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown	Destination							State Airport Identifier		fier					
Type of Airspace: Class E Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown	Same as Accident/Incident Location														
Weather Information Source of Briefing: No record of briefing Method of Briefing: Unknown	Type of Clearance: None														
Source of Briefing: No record of briefing Method of Briefing: Unknown	Type of Air	space: Class I	Ē												
No record of briefing Method of Briefing: Unknown	Weather	Information													
	Source of I	-	ord of briefi	ng											
FACTIIAI REPORT - AVIATION Page 3	Method of	Briefing: Unkno	wn												
TACTUAL KLI OKT - AVIATION					FACTUAL	REPORT	- AVIAT	ION							Page 3

National Transportation Safety Board
FACTUAL REPORT
AVIATION

NTSB ID: DEN03LA018

Occurrence Date: 11/22/2002

Occurrence Type: Accident

	FIYBOR		Occurrent	,е туре.	Acciden	IL .							
Weather	Information												
WOF ID	Observation Time	Time Zone	WOF Elevati	on	WOF Distance From Accident Site					Direction From Accident Site			
APA	1853	MST	5883 Ft.	MSL				16 NM		95 Deg. Mag.			
Sky/Lowes	st Cloud Condition: Unkn	iown				Ft.	AGL	Condition of Light: Night/Dark					
Lowest Ce	iling: Broken		13000 Ft.	AGL	Visibi	ility:	10	SM	Altimeter: 30.10			"Hg	
Temperatu	ure: 11 °C	Dew Point:	-8 °C	Wind	Direction:	170			Der	nsity Altitude:	6626	Ft.	
Wind Spee	ed: 6	Gusts:		Weath	ner Condt	ions at A	ccident S	ite: Visual C	Cond	itions			
Visibility (R	RVR): Ft.	Visibility (RV	/V)	SM	Intensity	y of Preci	pitation:						
Restriction	s to Visibility: None												
Type of Pre	ecipitation: None												
Accident	Information												
Aircraft Dar	mage: Substantial	Aircraft Fire	e: None	one Aircraft Exp					n None				
Classificati	ion: U.S. Registered/U.	.S. Soil											
- Injury Su	mmary Matrix	Fatal Ser	rious Mino	or	None	TOTAL							
First Pi	lot			1			1						
Second	d Pilot												
Studen	t Pilot												
Flight I	nstructor												
Check	Pilot												
Flight E	Engineer												
Cabin A	Attendants												
Other C	Crew												
Passen	ngers				1		1						
- TOTAL A	ABOARD -			1	1		2						
Other G	Ground Ground												
- GRAND	O TOTAL -			1	1		2						

National Transportation Safety Board

FACTUAL REPORT AVIATION NTSB ID: DEN03LA018

Occurrence Date: 11/22/2002

Occurrence Type: Accident

$\Lambda \sim$	min	intrati	۰ <i>۱</i> م	~ f ~		いっっ
AΩ	mın	istrati	ve ir	1IO	rma	uon

Investigator-In-Charge (IIC)

David C. Bowling

Additional Persons Participating in This Accident/Incident Investigation:

Ray Ryan Air Safety Inspector Federal Aviation Administration Denver, CO 80249